

Chapter 19

Cinema of the Gun: Science and Technology Studies and the First Person Shooter

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ABSTRACT

Games, like other technological artifacts, do not fall mysteriously from orbit. They are constructed by humans within a matrix of social, economic and cultural conditions of production and consumption. Technologies including the refrigerator, the M16 machine gun and the bicycle have famously been the subject of so-called science and technology studies (STS) analyses, following MacKenzie and Wajcman, Pinch and Bijker and Latour and Callon, among others. Aside from a few initial forays, games have largely escaped this kind of in-depth and sustained analysis. This chapter argues for the use of STS in games research and uses an STS approach to explore the evolution of a 'genre' of computer games – the first person shooter, or FPS – and in particular the cinematic turn that has taken place within this genre over the past decade.

INTRODUCTION

In 1992 *Wolfenstein 3D* presented players with a virtual world on their computers. They could move through this world as if seeing through the eyes of the game's protagonist, William "BJ" Blazkowicz as he mounted a Rambo-esque escape from a Nazi prison. This type of game, which has come to be known as a first person shooter (FPS) has been an important part of the game industry,

and is a genre that has grown with it. To illustrate the position of the first person shooter in the game market, a recent release, *Call of Duty: Modern Warfare 2* (2009) reportedly cost US\$200 million to produce and grossed US\$550 million in sales in its first week, with revenues of up to US\$1 billion expected. (Fritz 2009)

Since *Wolfenstein 3D* first person shooters have become increasingly cinematic, both visually and in terms of narrative development. It is tempting to see this as a natural process of development, an inevitable result as the games industry matures

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and as the technology becomes capable of more complex image and data. Similar technologically deterministic assumptions are often made about many technologies, and have come under increasing scrutiny from social theorists working under the broad banner of science and technology studies (STS) who emphasise the social dimensions of technological development over the scientific or technical.

This chapter has two purposes. Its primary goal is to present science and technology studies as an empirical method for analysing games. The secondary goal is to use an STS approach to examine the social reasons that underlie the cinematic turn of first person shooters. To reach these goals the chapter is organised into three sections. Section one provides an overview of science and technology studies. The second section looks briefly at how science and technology studies might be useful in the analysis of games. The third and final section acts as an exemplar, and employs a science and technology studies approach to look at the development of the first person shooter genre and the rise of cinematic verisimilitude in the genre.

BACKGROUND

Science and technology studies (often abbreviated as STS) is an approach to the study of technology that focuses on the importance of social factors in the construction of technologies. Two books in particular were important in bringing the STS approach to prominence – MacKenzie and Wajcman's *The Social Shaping of Technology* (1985); and, Pinch and Bijker's *The Social Construction of Technological Systems*. (1987) MacKenzie and Wajcman pose the fundamental question like this: "what shapes the technology in the first place, before it has 'effects'. Particularly, what role does society play in shaping technology?" (MacKenzie and Wajcman 1985, 8)

The term "technology" is problematic because it is widely used with a variety of subtly different meanings. MacKenzie and Wajcman associate three distinct meanings with the term "technology". First, technology can be said to relate to a physical object or artefact – a hammer is a technology, a computer is a technology. The second definition acknowledges the human dimension of technology. MacKenzie and Wajcman use the example of steelmaking as a technology – this emphasises that steel is made through a physical process of production that necessarily incorporates the activity of people who use the apparatus required to make steel. The third definition of technology presented by MacKenzie and Wajcman is derived from the etymology of the word technology as a form of knowledge: a "systematic knowledge of the practical arts". (MacKenzie and Wajcman 1985, 4)

A central problem in technology studies concerns the nature of the relationship between technologies and society. On one hand, technologies are often said to have an impact, or an effect, upon human societies. The microcomputer, for example, has been touted as both a positive technology that will unleash humans from the drudgery of repetitive labour, and as a negative technology that reduces humans to binary sequences and processes them like any other commodity. This perspective that technologies alone change society is an approach that is often referred to as technological determinism. (MacKenzie and Wajcman 1985, 4)

Science and technology studies is itself derived from earlier work done in the sociology of scientific knowledge by theorists like Kuhn. (1962) This work emphasised the social contingency of scientific discoveries, and argued that scientific discoveries were open to interpretative flexibility. In other words, scientific knowledge was not absolute – the results of experiments are always open to a certain level of interpretation and it was this interpretation that could be debated. Through analysis of these debates sociologists could show how different perspectives were united through

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